

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

RAGHURAMAN et al.

Group Art Unit: 2155

Application No. 09/490,981

Examiner: Qureshi, Shabana

Filed: January 10, 2003

For: METHOD OF TRACING DATA TRAFFIC ON A NETWORK

**AMENDMENTS TO THE CLAIMS MADE IN RESPONSE
TO OFFICE ACTION DATED JANUARY 10, 2003**

IN THE SPECIFICATION:

Replace the paragraph beginning on page 1, line 4 with the following:

This application claims the benefit of U.S. Provisional Application No.
60/141,581 60/140,581, filed on June 23, 1999.

Replace the paragraph beginning on page 4, line 21 with the following:

When a process on a WINDOWS NT brand operating system ~~system~~ tries to open
a file that resides on a remote computer, the following steps occur:

- The process calls the I/O Manager to request that the file be opened.
- The I/O Manager recognizes that the request is for a file on a remote computer, so it passes it to the redirector file system driver 22 (RDR.Sys).
- The redirector 22 passes the request to lower-level network drivers that transmit it

to the remote Server 26 for processing.

- The transport receives a send IO request packet (Irp) for the SMB header and command.
- This send is translated into frames and queued for dispatch on the wire through the Miniport driver.

IN THE CLAIMS:

Amend claims 4, 6, 10, 15, and 18 and add claims 22, 23, and 24 as follows:

4. (Amended) A method of tracing a transmission of data over a computer network comprising: detecting ~~the presence of a~~ a transport-layer request to transmit an input/output packet ~~requesting a transmission~~; searching the input/output request packet to determine ~~the an~~ an identity of ~~the a~~ a process that created the input/output request packet; and storing in a trace log an entry representing the ~~transmission request~~, wherein the entry comprises the identity of the process, and wherein the trace log is accessible to determine ~~the a~~ a volume of data being transmitted over the network.

6. (Amended) A method of tracing a receipt of data from a computer network comprising: detecting ~~the presence of a~~ a transport-layer request to transmit a packet for an input/output connection to a port; searching the packet to determine ~~the an~~ an identity of ~~the a~~ a process that created the packet; and in response to the detection of a

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receipt of data at the port, storing in a trace log an entry representing the receipt of the data, wherein the entry comprises the process identification, and wherein the trace log is accessible to determine ~~the~~ a volume of the data being transmitted over the network.

10. (Amended) A facility for tracing data traffic on a network, the facility comprising: an identifying means for identifying a process causing a transport-layer request to transmit data ~~transmission or receipt of a communication~~ via the network; and a logging means in communication with the identifying means for logging and event, wherein the event comprises the identification the process and wherein the logging means is useable to determine ~~the~~ a volume of data traveling over the network.

15. (Amended) A computer-readable medium having stored thereon computer-executable instructions for performing steps comprising: detecting ~~the presence of a~~ a transport-layer request to transmit an input/output packet requesting a transmission; searching the input/output ~~request packet~~ to determine ~~the~~ an identity of ~~the~~ a process that created the input/output ~~request packet~~; and storing in a trace log an entry representing the ~~transmission request~~, wherein the entry comprises the identity of the process, and wherein the trace log is accessible to determine ~~the~~ a volume of data being transmitted over the network.

18. (Amended) A computer-readable medium having stored thereon computer-executable instructions for performing the steps comprising: detecting the ~~presence of a transport-layer request to transmit~~ a packet for an input-output connection to a port; searching the packet to determine the ~~an~~ identity of the ~~a~~ process that created the packet; and in response to the detection of a receipt of data at the port, storing in a trace log an entry representing the receipt of the data, wherein the entry comprises the process identification, and wherein the trace log is accessible to determine the volume of the data being transmitted over the network.

22. (New) The method of claim 1, wherein the transmission of data is recorded at the completion of the transmission indicated by an acknowledgement from the first device.

23. (New) The method of claim 1, wherein the receipt of data is recorded at the receipt of a first block of data and a last block of data.

24. (New) The method of claim 4, wherein the identity of the process includes a port number or an IP address relating to the transmission.